

CREATIVITY IN ENGLISH TEXTBOOKS: A COMPARATIVE STUDY OF MATRICULATION AND O LEVEL

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ABSTRACT

English textbooks in Pakistan play an important role in shaping students' learning experiences. However, concerns have been raised that these textbooks often emphasize memorization rather than creative thinking. Although earlier studies have explored communication skills in textbook analysis, limited research has compared creativity in Matriculation and O Level English textbooks. This study aims to compare how creativity is addressed in Matriculation and O Level English textbooks used in Pakistan. The study follows a quantitative research approach and applies Ellis Paul Torrance's Model of Creativity from 1966 as the theoretical framework for textbook analysis. Eighteen exercises from each textbook are selected to represent key content types. Six experienced teachers from the education department scored these exercises. Each exercise was assessed using four dimensions of creativity including fluency, flexibility, originality, and elaboration through a three point ordinal scale. The Mann Whitney U test was used to compare overall creativity scores between the two textbook systems. The results show that the O Level textbook has higher levels of fluency, flexibility, originality, and elaboration. In contrast, the Matriculation textbook mainly focuses on guided and structured tasks and provides fewer opportunities for creative expression. These findings demonstrate clear differences in how creativity is addressed in English textbooks across the two educational systems and offer guidance for curriculum developers to support creative learning.

Keywords: English Textbook; Creativity; Torrance Model of Creativity; Fluency; Flexibility; Originality; Elaboration.

Introduction:

Education plays a fundamental role in shaping students' cognitive abilities, and creativity is widely recognized as an important component of effective learning. Modern educational methods place emphasis on the development of creative thinking rather than memorization. Textbooks are key instructional materials and highly influence students' cognitive abilities and classroom learning process. In Pakistani education system, English textbooks are the main source of learning for students, and their role in promoting creativity has become a growing area of academic interest. In contrast to settings with various teaching aids and resources, Pakistani classrooms, typically rely on designated textbooks. This reliance indicates that English textbooks not only help to improve language skills but also greatly affect students' cognitive abilities and problem solving skills. Pakistan's educational framework consists of various instructional systems, with the Matriculation and O-Level systems being the most notable. The Matriculation system is managed by regional education boards and usually presents local educational and socio-cultural

values. In contrast, the O-Level framework associated with Cambridge Assessment International Education adheres to global standards and aims to promote analytical and higher-order thinking skills (Shamim, 2008). These systems differ not only in their curriculum content and assessment methods but also in their underlying educational philosophies. Understanding these differences is important for analysing how educational materials can promote creativity among students.

Textbooks play a central role in shaping students' learning, but if the textbooks promote memorization instead of creative thinking it can lead to weak creativity level in the students. Despite this, there is a limited research regarding how English textbooks address creativity in Matriculation and O level. Therefore, the present study aims to compare and analyse English textbooks from both systems to determine how they promote creativity in terms of fluency, flexibility, originality, and elaboration. The study hypothesizes that there is a significant difference in the level of creativity reflected in the exercises of O Level and Matriculation English textbooks, as opposed to the null assumption that no such difference exists.

This study is important because creativity has become a critical skill for students' intellectual and personal development in modern era, yet it is often neglected in traditional teaching materials. English textbooks are widely used in Pakistani Education System and play a central role in shaping students' cognitive abilities, making it important to understand how they limit or support creative thinking. The widespread use of these textbooks, make it crucial to examine how creativity is represented, particularly in a comparative context between the O Level and Matriculation systems. By analyzing the textbook, this study provides valuable insights into the weaknesses and strengths of existing materials and highlights areas where textbooks can be improved. The rationale for this study is to address this gap and provide evidence-based and quantitative results that can help policymakers and educators, design learning materials that support creativity. This study is justified because it can contribute to improve the quality of education and encourage creative thinking among students in Pakistan.

Problem Statement :

Textbooks play a central role in shaping students' learning, but if the textbooks promote memorization instead of creative thinking it can lead to weak creativity level in the students. Despite this, there is a limited research regarding how English textbooks address creativity in Matriculation and O level. Therefore, the present study aims to compare and analyse English textbooks from both systems to determine how they promote creativity in terms of fluency, flexibility, originality, and elaboration.

Hypotheses:

Null Hypothesis (H₀): There is no significant difference in creativity levels between exercises in the Matriculation and O Level textbooks.

Alternative Hypothesis (H₁): There is a significant difference in creativity levels between exercises in the Matriculation and O Level textbooks.

Literature Review:

The way textbooks represent culture has a direct impact on learners' imaginative and cognitive engagement. A critical linguistic analysis by **Asghar and Sulaimani (2017)** examined the cultural aspects incorporated in school textbooks and found that Pakistani ESL materials represented a limited range of cultural values. This narrow

representation, the authors argue, “limited learners’ opportunities for open-ended or creative thinking” (p. 270). This indicates that cultural diversity is not merely a matter of inclusion but also a gateway to creativity, as exposure to varied perspectives encourages learners to think beyond memorization. Gender roles in textbooks are also directly related to learner participation and creativity. **Waqar and Ghani (2020)** conducted a comparative study of provincial English textbooks in Pakistan and found that the Sindh and Punjab Textbook Boards had better female gender representation than other provincial boards (p. 382). While the study primarily addressed equity, it indirectly highlights how inclusivity can enhance learners’ imagination and confidence, both of which are essential for developing creativity in language learning. **Din, Khan, and Ahmed (2020)** investigated the incorporation of critical thinking skills in secondary and higher secondary English textbooks. They found that the least emphasized cognitive skill was *create*, while most textbook exercises focused on *remember* and *understand* (p. 112). By relying heavily on rote based questioning, the textbooks left little room for originality and innovation, revealing a systemic failure to integrate creativity within the national curriculum design. Using Bloom’s Taxonomy, **Mahmood, Mahmood, and Butt (2020)** analyzed Federal and Khyber Pakhtunkhwa English textbooks and found that knowledge and comprehension categories dominated the exercises, with very little emphasis on evaluation or synthesis (p. 54). Since evaluation and synthesis represent higher order thinking skills, this imbalance demonstrates how creativity is marginalized in favor of repetition-oriented learning, resulting in constrained cognitive engagement among learners.

Mahmood, Mahmood, and Butt (2020) applied Bloom’s taxonomy to analyze English textbooks used in Federal and Khyber Pakhtunkhwa curricula. They found that “*the knowledge and comprehension categories dominated the exercises, with very little focus on evaluation or synthesis*” (p. 54). Since evaluation and synthesis represent higher-order thinking skills, this finding illustrates that creativity is often marginalized in favor of repetition-oriented exercises. As a result, learners experience constrained cognitive engagement and limited opportunities for creative thinking. Similarly, Qasim, Ajmal, and Azam (2021) applied Bloom’s taxonomy and conducted one of the few comparative analyses between local and international syllabi by examining Punjab Textbook Board (PTB) and Oxford Progressive English (OPE) textbooks. Their results showed that “*the PTB textbook covers 25.37%, whereas OPE covers 43.18% of critical thinking content*” (p. 89). These findings suggest that internationally developed materials place greater emphasis on higher-order skills in the context of Blooms taxonomy theory. Although creativity was not measured explicitly, the higher proportion of critical thinking content implies stronger potential for creative learning in O-Level educational settings.

Khalid and Malik (2024) examined the incorporation of digital and interactive elements in newer English textbooks. Their findings revealed that although interactive exercises were increasingly included, they were “*largely created to support grammar and vocabulary instead of inspiring creativity*” (p. 152). This suggests that technology integration alone does not guarantee creative engagement unless activities are deliberately designed to promote innovation and originality. In addition, gender representation in textbooks plays a significant role in learner participation and creative development. Waqar and Ghani (2020) conducted a comparative study of provincial English textbooks in Pakistan and found that “*Sindh and Punjab Textbook Boards had better female gender representation than other provincial textbook*

boards" (p. 382). Although their study primarily addressed issues of equity, it indirectly highlights how inclusivity can enhance students' imagination and confidence, both of which are essential for promoting creativity in language learning.

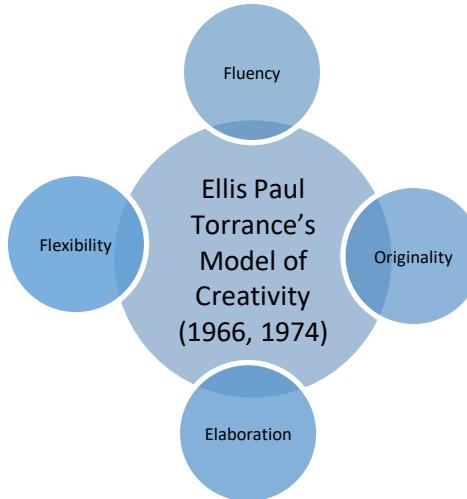
Research Gap:

The existing research on pedagogical resources often emphasizes the use of cognitive models, including the Taxonomy of Bloom, to evaluate the learning goals and intellectual growth of the textbook. Nevertheless, it is apparent there is a significant gap in the research studies that specifically investigate the role of creativity in English textbooks, particularly when the research is conducted in terms of the Model of Creativity developed by Torrance that identifies the key elements of creative thinking: fluency, originality, flexibility, and elaboration. Although the theoretical importance of these dimensions has been conducted, no comparative study has been conducted to determine which of Matriculation or O Level English textbooks is more effective in developing these creative attributes of learners. The current investigation attempts to fill this gap through a detailed content analysis of both systems of textbooks, therefore, establishing how much the respective curriculum incorporate the possibility of students developing creative ways of thinking.

Methodology :

This study is **grounded in the Torrance Model of Creativity**, which evaluates creativity in four dimensions:

1. **fluency** (ability to generate many ideas)
2. **flexibility** (ability to approach problems from different perspectives)
3. **originality** (uniqueness of ideas),
4. **elaboration** (ability to develop and expand ideas).



A **quantitative research design** is employed because it provides **objective measurement and comparison** of level of creativity in exercises from two different educational systems. The textbooks used for the study are the **Cambridge O Level English by Helen Toner and John Reynolds** and the **AJK Matriculation English textbook for Class X**, which is prescribed by the Azad Jammu and Kashmir Textbook Board. A **quantitative research design** is used because it provides **objective measurement and comparison** of creativity in exercises from two different educational systems. The textbooks examined were the **Cambridge O Level English by Helen Toner and John Reynolds** and the **AJK Matriculation English textbook for Class X** prescribed by the Azad Jammu and Kashmir Textbook

Board. The study employed a combination of **purposive and random sampling**, where textbooks from both educational systems and sections were purposively selected to represent all content, and **exercises within each section were randomly selected** to reduce bias. A total of **18 exercises** from each textbook were used, which represent different units and exercise types. **All exercises from the selected sections were taken into consideration to ensure comparability and comprehensive coverage.**

The exercises were assessed using a **checklist developed from the Torrance Model of Creativity**, and six experienced teachers independently rated the exercises to ensure validity and **reliability**. The scale used in this study has three categories:

- 0 – No creativity present**
- 1 – Limited creativity present**
- 2 – Creativity clearly present**

Data was compiled, and the average scores were determined for each exercise on the four dimensions of creativity. The Mann-Whitney U test was used to compare the creativity levels of Matriculation and O Level exercises. This analytical framework offers a systematic and transparent approach to measure and compare creativity, as results are presented in the form of tables. Data was compiled, and the average scores were determined for each exercise on the four dimensions of creativity. The Mann-Whitney U test was used to compare the creativity levels of Matriculation and O Level exercises.

Analysis and Findings :

Torrance Model Creativity Scores and Overall Creativity for 18 O Level Activities

Exercise	Fluency	Flexibility	Originality	Elaboration	Overall Creativity Score
1 (Descriptive writing: identify features)	2	2	1	2	1.75
2 (Re-read passages and explain language effects)	2	2	1	2	1.75
3 (Rewrite bland account with details: happy/threatening)	2	2	2	2	2.00
4 (Descriptive paragraph on selected topic)	2	2	2	2	2.00
5 (Examine effective argumentative writing)	1	1	0	1	0.75
6 (Rewrite weak argumentative essay)	1	2	1	2	1.50
7 (Identify emotive language)	1	0	0	1	0.50
8 (Write opposing argument essay on	2	2	1	2	1.75

homework)					
9 (Argumentative essay: Money can't buy happiness)	2	2	2	2	2.00
10 (Write a functional letter)	1	1	0	1	0.75
11 (Talk about local tradition or ceremony)	2	2	1	2	1.75
12 (Magazine article: change places with someone)	2	2	2	2	2.00
13 (Write police report)	1	0	0	1	0.50
14 (Letter describing outdoor camp experience)	2	1	1	2	1.50
15 (Insert punctuation in passage)	0	0	0	1	0.25
16 (Compare formal and informal language examples)	2	2	1	2	1.75
17 (Answer comprehension questions: Coral Reefs)	0	0	0	1	0.25
18 (Vocabulary MCQs: World Food Shortage)	0	0	0	0	0.00

The analysis of selected exercises from the O Level English textbook shows that the creativity potential differs depending on the type of task. Activities related to emotive language, descriptive writing, argumentative writing, letter writing, and reading comprehension passages tend to promote higher levels of creativity, as they require students to express personal interpretations, generate ideas, and organize their thoughts in original ways. These activities promote fluency and elaboration, allowing learners to generate multiple sentences, provide detailed explanations and develop argument. Flexibility is moderately supported in these exercises because students can approach topics from different angles and use different vocabulary and sentence structures. However, originality remains somewhat limited because, while students can express their own ideas, many responses converge on common interpretations or conventional formats. In contrast, tasks such as synonyms, vocabulary exercises, and multiple choice questions show low creativity, as they focus primarily on accuracy, recognition, and rule following rather than imaginative thinking or idea generation. Overall, the data reflect that the O Level textbook encourages moderate to high creativity in open ended writing and comprehension tasks but provides only minimal opportunities for divergent thinking in closed or language accuracy focused exercises. This pattern demonstrates that while the textbook integrates creative tasks in certain

sections, there is an uneven distribution of activities that promote originality, flexibility, and elaboration across the curriculum.

Torrance Model Creativity Scores and Overall Creativity for 18 Matriculation Exercises

Activity	Fluency	Flexibility	Originality	Elaboration	Overall Creativity Score
1 (Translate paragraph into Urdu)	1	0	0	1	0.5
2 (Use words in sentences: eloquence, humble, etc.)	2	2	1	2	1.75
3 (Tick correct verb forms)	0	0	0	0	0
4 (Write paragraph on Rasoolullah as mercy)	2	2	1	2	1.75
5 (Oral communication: discuss achievements)	2	2	1	2	1.75
6 (Choose correct spelling)	0	0	0	0	0
7 (Choose correct option after reading text)	0	0	0	0	0
8 (Identify transitional devices)	0	0	0	0	0
9 (Write personal daily routine)	2	2	1	2	1.75
10 (Express gratitude, apology, anger, impatience)	2	2	1	2	1.75
11 (Use word pairs: Accept/Except, Advice/Advise, etc.)	2	1	1	1	1.25
12 (Use words in sentences: fancy, sail, idea, etc.)	2	2	1	2	1.75
13 (Find rhyming words from poem)	1	0	0	0	0.25
14 (Write summary of poem)	2	1	1	1	1.25

‘Books’)					
15 (Paraphrase poem ‘Daffodils’)	2	1	1	1	1.25
16 (Tick right spelling/MCQs – reading comprehension)	0	0	0	0	0
17 (Read poem ‘Daffodils’ and pick rhyming words)	1	0	0	0	0.25
18 (Oral recitation: pronunciation, stress, intonation)	1	0	0	0	0.25

The 18 of the identified activities evaluated with the help of Torrance Model of Creativity (fluency, flexibility, originality, and elaboration) provide significant information about the potential to develop creativity with the help of the exercises in the textbook. When viewed as a whole, the data depict a steady trend: most of the activities develop limited to moderate creativity, but not high-level creative thought. Fluency was found to be the strongest and steadiest supported dimension with the tasks that students needed to write sentences, paraphrase a sentence or give a description generally scoring fluent at 2. Such exercises allowed learners to come up with several ideas and create long linguistic output. Conversely, fixed-response tasks (e.g., choosing the correct spellings, checking verb forms, finding transitional devices) did not provide much possibilities to generate ideas, and consequently fluency scores were lower. Flexibility, meaning the ability to change attitudes and use different strategies, was seen during a very small number of tasks. Descriptive writing, rewriting passages with other settings or writing about personal routines allowed a certain level of structure and expressiveness options. Nevertheless, exercises that were followed in greater quantities were those that followed convergent formats with fixed responses, thus providing low flexibility scores. As a result, the content usually confines students to rule-based, single-minded ways of thinking as opposed to providing alternative ways of thinking. The least encouraged dimension in all the activities was originality, which was only evident in a few tasks that enabled the students to come up with original or creative answers, but most of the activities focused on accuracy, proper use, paraphrasing, and grammar, which inherently would inhibit originality. In this regard, the score of originality of most tasks was often 0 or 1. According to this tendency, despite the fact that a preference was given to a focus on the accuracy of language, the possibilities of creative thinking are still minimal. The degree of elaboration differed depending on type of activity; the activities where elaboration was necessary, the description was necessary, or the task required extended elaboration were medium levels of elaboration as they were requested to elaborate their ideas, and the short, objective and grammar-based activities did not necessitate the elaborate development and thus were scored low on elaboration. In general, elaboration was only evident in those activities that specifically required elaborated written input. Synthetically, the creativity profile of the 18 examined activities implies that the textbooks encourage creativity differently. Although some

of the activities help the child express themselves descriptively and write interpretively, a large percentage is based on rote learning, memorized answers, and correctness by rule. Such activities, as sentence writing, paraphrasing, or description of personal experience are likely to promote fluency and elaboration, allowing students to develop multiple ideas and provide extensive explanations. Still, there is limited flexibility in most exercises because of the need to follow the established structures or answer formats and there is limited originality since most of them focus on accuracy, grammar, and proper use rather than the imaginative or unique responses. Tasks that focus on recognition, such as multiple-choice, spelling and vocabulary tasks had low scores across all dimensions of creativity indicating their focus on convergent thinking. The discussion shows that even though there are some creative opportunities in some writing and oral activities, they are not always available throughout the textbook. As a result, the general creativity in all the sixteen activities is in the moderate to low range. The evidence suggests that although some features that stimulate creative thinking were included in the textbooks, they do not at all facilitate divergent thinking, creative expression, and flexible problem solving which are the main aspects of the Torrance model, and thus have partial support in the development of the creative potential of students.

Findings :

Mann Whitney U Test Comparing Creativity Scores of Matriculations and O Level Textbooks

Comparison of Overall Creativity Scores Using Mann–Whitney U Test

Statistic	Value
Sample size (Matriculation)	18
Sample size (O Level)	18
Test Used	Mann Whitney U Test
U statistic	102.5
p-value	0.0570
Significance Level (α)	0.10
Result	Significant difference ($p < 0.10$)
Interpretation	O Level activities demonstrate higher creativity scores than Matriculation activities

To test the hypothesis that the difference in the level of creativity between the Matriculation and O Level English textbook was statistically significant, a Mann, Whitney U test was used to test the equivalent of the total score on 18 exercises in each textbook in terms of creativeness. The U value of the test was 102.5, and the p - value was 0.057. Since the research used a 10 per cent level of significance ($\alpha=0.10$) which was taken as educational and textbook-based data are often subject to natural variation and thus moderately flexible criterion is suitable, the p-value obtained is lower than the criterion. As a result, it is not likely to see the difference as significant as that which was found by chance. **According to this statistical finding, the null hypothesis that there is no significant difference in the level of creativity in the two textbooks was rejected.** This rejection is an indicator of statistically significant difference in the scores of creativity between two textbooks. Precisely, the O Level textbook had scored better in all four Torrance dimensions

(fluency, flexibility, originality and elaboration) and this reflects more support to the creativity-oriented activities. On the contrary, Matriculation textbook indicated relatively lower scores, which indicated reduced creativity chances. Mann Whitney U test thus confirms that the difference witnessed in the descriptive analysis cannot be explained by chance variation but rather there is an important difference in the two educational materials. On the whole, **the findings affirm that the O Level textbook encourages a highly greater degree of creativity compared to the Matriculation textbook accordingly**, which confirm the general outcomes of the study.

Conclusion:

This research concludes that there is an evident disparity between the approaches to creativity, when addressing it in Matriculation and O-Level English textbooks. According to the quantitative content analysis based on the Model of Creativity constructed by Torrance, it is possible to mention that the O-Level textbook presents a better level of the fluency, flexibility, originality, and elaboration. The results of the Mann-Whitney U test also support the fact that the difference in the overall creativity scores is statistically significant at the 10 percent level of significance and hence they reject the null hypothesis. The Matriculation textbook, in contrast, is more based on guided and structured exercises and offers a lesser number of opportunities to apply creative expression.

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